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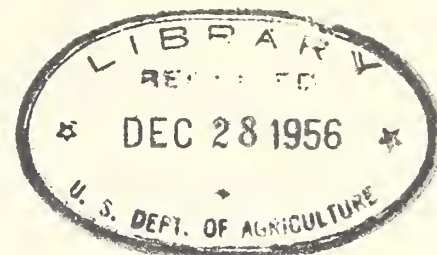
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UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service
Plant Pest Control Branch
Washington 25, D. C.



FEDERAL PURCHASE DESCRIPTION
INSECTICIDE, DIELDRIN, GRANULATED

1. SCOPE AND CLASSIFICATION

1.1 Scope. Granulated dieldrin insecticide, covered by this specification, is a dry, free-flowing, non-dusty, granular preparation, adapted to surface treatment of soil in a dry broadcasting operation.

1.2 Grades. The granulated dieldrin insecticide shall be of one type and of the following grades with respect to concentration of the active ingredient, as specified:

5 percent dieldrin
10 percent dieldrin

2. REQUIREMENTS

2.1 Composition. The granulated insecticide shall be prepared by impregnation of a deactivated absorbent granular carrier with a dieldrin solution. The finished product shall not be flammable.

2.1.1 Dieldrin. For purposes of this specification dieldrin is defined as containing not less than 85% of HEOD (1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4-endo, exo-5,8-dimethanonaphthalene), together with not more than 15% of insecticidally active related compounds. The HEOD contents of the finished 5% and 10% dieldrin insecticides shall be not less than 4.25% and 8.5%, respectively.

2.1.2 Inert ingredients. The inert ingredients shall consist of (1) the granular carrier with deactivator, (2) unevaporated solvent remaining permanently as part of the dry finished preparation, and (3) any impurities in technical dieldrin used in preparation of the granulated insecticide.

2.1.2.1 Carrier. The carrier used shall be granular attapulgite clay, of commercial size grade 30/40 mesh, capable of giving the grain size distribution required in the finished insecticide product. The clay shall have been heat-treated to the degree known in the trade as regular; that is, thoroughly dried but not calcined to the point of inducing resistance to breakdown of the granules through soaking in water. Before impregnation with the dieldrin solution, the clay shall be deactivated by the thorough blending of one part by weight of urea and 19 parts of clay.

2.1.2.2 Solvent. The solvent used in making the dieldrin solution for impregnation of the granules shall be a suitable non-phytotoxic

hydrocarbon, with the following characteristics, as determined in Federal Specification VV-L-791:

Flash point, minimum °F (Cleveland Open Cup)	140	Test Method 1103.5
Distillation range:		1001.7
Initial boiling point, minimum °F	320	
50% point, minimum °F	400	
End point, maximum °F	660	
Specific gravity, 60° F/60° F	0.890 to 0.960	401.3
Viscosity, SSU @ 100° F, maximum	40 sec.	304.6

The weight of solvent used shall be 20% of the weight of the finished insecticide formulation.

2.2 Physical form.

2.2.1 General. The product shall consist essentially of dry granular aggregates, free of objectionable dustiness, but capable of being broken down into subaggregates and ultimate particles with reasonable ease, to facilitate further distribution of the toxicant through natural weathering processes subsequent to application of the product upon the soil.

After formulation and before packaging the granulated insecticide shall be cured for a sufficient period to allow for full sorption of the dieldrin solution.

2.2.2 Grain size distribution. The grain size distribution of the product, determined by dry sieve test, shall be within the limits indicated in table I.

Table I. Grain size distribution (dry sieve).

<u>Sieve</u> <u>Micron size</u>	<u>U. S. No.</u>	<u>Percent passing</u>	
		<u>Minimum</u>	<u>Maximum</u>
1000	18	98	—
250	60	—	10

2.3 Workmanship. The product shall be clean, dry, uniform, free-flowing, and free of any defects which might impair its utility.

3. SAMPLING AND INSPECTION

3.1 Sampling shall be as specified in the contract or order.

3.2 Inspection will be made by the buyer or agent to determine compliance with this specification.

4. PREPARATION FOR DELIVERY

4.1 Packaging. The containers used shall be such as will not be affected by the contents, and shall be so constructed as to permit acceptance by carrier for transportation at the lowest applicable rate, and to afford maximum protection from normal hazards of storage and transportation. Further details on type and size of packages may be specified in the contract or order.

4.2 Marking. The label shall be cleared for compliance with the Federal Insecticide, Fungicide, and Rodenticide Act. Application to the Pesticide Regulation Section, U. S. Department of Agriculture, Washington 25, D. C., must be made for registration of the label prior to shipment of the finished insecticide in interstate commerce.

(See "Test Methods for Granulated Dieldrin Insecticide")

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Revision of Proposed Federal Specification

Revised by Methods Improvement Section
(with assistance of Dr. H. L. Haller)

Plant Pest Control Branch, ARS, USDA

June 12, 1956

